

Remarks:

The claims are 1-4 with claim 1 the sole independent claim. Claim 1 has been amended to better define the intended invention and reconsideration of the claims is expressly requested.

Support for the amendment to claim 1 with regard to the resin substrate is found *inter alia*, on page 13, line 25 to page 14, line 7.

The Examiner had rejected claims 1-3 as obvious over Kawaguchi '131 in view of Kagami '349. The Examiner admits Kawaguchi fails to disclose an underlayer formed of a first and second underlayer, wherein the second underlayer is adjacent to the magnetic domain wall displacement layer, the first underlying layer is adjacent the second underlying layer on the substrate side, and the first underlying layer has a lower density than the second underlying layer. The Examiner relies on Kagami for the disclosure of the first and second underlayers in Figure 5 having the same spatial and density relationships as above. With regard to claim 4, Chen '932 is said to be directed to controlling deposition rates by controlling a distance between a substrate and a target. The grounds of rejection are respectfully traversed.

Prior to addressing the grounds of rejection applicant wishes to briefly review certain key features and advantages of the present claimed invention.

The applicant has found that the surface of the resin substrate has irregularities normally equal to or larger than a recording mark length, wherein the irregularities cause non-uniform surface roughness. These irregularities can be flattened

by the specific claimed underlying first and second layers. The surface roughness of the substrate is made more uniform by the presence of the first underlying layer, thus allowing adjustment of the surface roughness of the resin substrate.

In Comparative Example 1, a magneto-optical recording medium was formed where the first underlying layer was not present, only the second underlying layer. In Comparative Example 2, the order of the first and second underlying layers is reversed. As noted on specification pages 29 and 32 the medium of the Comparative Examples had high jitter values and regenerated signal characteristics were inferior. These results show that employing both first and second underlayers in the claimed order and with the claimed densities is required.

It should be noted that the unevenness of the surface of the substrate is a particular problem where the substrate is a resin substrate. Accordingly, claim 1 has been amended to more specifically define the intended invention.

The Examiner has admitted Kawaguchi fails to disclose first and second underlayers, a second underlayer next to the magnetic wall domain wall displacement layer and a first underlayer next to the second underlayer on the substrate side, wherein the first underlayer has a lower density than the second underlayer. Applicant has demonstrated the presence of unexpectedly superior results where the dual underlayer arrangement is as claimed. Accordingly, the showing of unexpectedly superior results herein rebuts any possible presumption of obviousness raised by the Examiner.

Further, applicants will demonstrate that there is no motivation to combine Kagami ‘349 with Kawaguchi ‘131. Kagami ‘349 discloses that a recording magnetic film (corresponding to the recording layer of the present invention) is formed on a dielectric layer formed by stacking alternating layers having different etching rates with respect to a fluoric acid in order to increase the recording sensitivity of a magneto-optical recording medium. This is performed because a dielectric material having high uniformity is provided under the magnetic recording layer to reduce the coercive force of the recording magnetic film, whereby a stable signal recording can be performed even by a low magnetic field. In addition, Kagami does not disclose a domain wall displacement type (DWDD) medium.

The technical idea of Kagami resides in that the recording sensitivity of a magnetic layer, where information recording is performed, is improved. Therefore, the dielectric layer, which is a feature of Kagami, must be arranged adjacent to a surface of a recording layer on the substrate side. On the other hand, the DWDD-type recording medium disclosed by Kawaguchi has a switching layer on a surface of a recording layer at the substrate side. This arrangement is employed because the medium disclosed by Kawaguchi is DWDD-type medium.

Accordingly, one cannot readily apply the invention of Kagami to a DWDD-type medium disclosed by Kawaguchi without losing the function of the DWDD-type medium disclosed by Kawaguchi. In addition, it is meaningless to arrange a dielectric layer, which is a critical feature of Kagami, between a magnetic domain wall displacement

layer and a substrate as in Kawaguchi. DWDD-type media are different in kind and operate by different principles from the recording medium of Kagami.

Therefore, applicant submits that none of the references, whether considered alone or combined, discloses or suggests the present claimed invention nor renders it unpatentable. Accordingly, it is respectfully requested that the claims be allowed and that the case be passed to issue.

Applicant's undersigned attorney may be reached in our New York office by telephone at (212) 218-2100. All correspondence should continue to be directed to our address given below.

Respectfully submitted,

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